



One Magic Square

GROW YOUR OWN FOOD
ON ONE SQUARE METRE

Lolo Houbein

Food Plot Designs for All Seasons in Temperate Climates

Wakefield Press

One Magic Square

Lolo Houbein's great-great-grandfather was a market gardener in North-West Frisia who passed on a food gardening gene down every generation. In Lolo's youth she saw her hometown in western Holland implode under the impact of war, until all animals, birds and rodents were eaten, all fish angled, all trees used for firewood and a long winter of famine ensued during which 24,000 people died of starvation in an area approximately a sixteenth the size of Tasmania. Food security has been Lolo's life-long preoccupation and this book is an offering for survival to those who have never even grown a radish.

Lolo Houbein was educated at the universities of Adelaide and Papua New Guinea in the literatures of Australia, Britain, Papua New Guinea, the Pacific and Africa, classical studies, world religions and anthropology. She is well known as an author of fiction and non-fiction. Her novel *Walk a Barefoot Road* won the Bicentennial/ABC Fiction Award.

By the same author

Fiction

Everything Is Real, 1984

Walk A Barefoot Road, 1988, 1990

The Sixth Sense, 1992

Lily Makes a Living, 1996

Island Girl, 2009

Non-Fiction

Wrong Face in the Mirror, 1990

Tibetan Transit, 1999

Outside the Magic Square, 2012

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Government
of South Australia

Arts SA



For my grandchildren Paul, David, Vaan and Ty.
This is a book for their future.
And for Burwell, for putting up.

In memory of Hendrik Houbein (1796–1874)
grower of cabbages, carrots, onions and potatoes
in North-West Frisia
and
Uncle Wim Schild
who taught me about vegetables,
fruits and chickens in his magic
food garden at Laren,
North Holland.



Lolo feeding the chickens in Uncle Wim's garden.

‘The earth is the origin of all things,
the root and garden of all life . . .’

Kuan Chung, Kuan Tzu, 330 BCE

‘Produce locally what is consumed locally.’

E. F. Schumacher

‘I have never read of any Roman supper that
seemed to me equal to a dinner of my own vegetables;
when everything on the table is the product of my own labor . . .
It is strange what a taste you suddenly have
for things you never liked before.’

Charles Dudley Warner

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Abbreviations

For quick reference write these on sturdy paper and fold into a bookmark.

B&B = blood & bone.

CM = compost topped with mulch.

CMC = composted manure with a topping of compost.

CLS = compost and liquid seaweed.

COF = compost and organic fertiliser.

LS = liquid seaweed.

OF = organic fertiliser.

Half a square = one square metre divided lengthwise or diagonally.

Half row = half a metre.

Plot = the same as square, a one square-metre plot.

Plugs = plants plugged in.

Quarters = a square metre divided into four equal squares or triangles.

Row = 1 m long, i.e. one side of the square.

Season = either **spring/summer** or **autumn/winter**, spring and autumn being sowing seasons and summer and winter growing seasons.

Singles = single seeds.

Square = one square metre or 100 x 100 cm.

How to Use this Book

To start growing your own food without delay, put down this book, go out in the garden and select a spot in the sun. Dig over one square metre with a garden fork and remove all the weeds by hand. If digging up lawn, cut out the sods with a spade, roots and all, and stack them upside down under a tree as mulch.

Come inside again and thoroughly wash your hands and clean your nails, as you must always do after working with soil. Pick up this book and in Part One select what you want to grow in your first Salad Plot. Make a list and go out to buy seedlings or seeds for your chosen vegetables and one small bag of blood and bone (B&B), since you don't yet have compost and composted manure. If you dug a square hole in the lawn, you may need to fill it with a bag of potting soil and plan to put in deep edgings to keep the grass roots out. There must be something you can recycle!

Return home to read descriptions of the vegetables you have bought in the **List of Common Vegetables** in Part Four. Put a bookmark at every vegetable you would like to grow. It's easy to grow your own spuds. No more lugging home 10 kg bags – lug manure instead. Love corn on the cob? They're easy too. So are artichokes, asparagus and rhubarb.

Go outside again and rake a few handfuls of B&B through the square, loosening the soil to a depth of 15 cm. Water it in. Now plant your seeds and seedlings according to your chosen Salad Plot plan. Water again. Go indoors to scrub your hands and nails as a surgeon would.

You are now a food gardener!

This book presents plot designs graded from the easiest and most robust to the complex and tender, starting with four plans for salads and leading you in easy stages to the degree of food self-sufficiency you decide on. The sequence presented takes care of crop rotation to keep the soil healthy. However, you can grow plots in a different sequence by feeding plants regularly.

Having done the hard yakka, sit back and read this chapter and any two chapters in Part Two and Part Three that interest you, gathering ideas for your own little food paradise. Also read **Seeds & Seedlings** in Part Three. Make notes on the back of an envelope. Don't make it more complex than need be! If you never go beyond the Salad Plots, but maintain your square through the seasons by practising crop rotation with peas or broadbeans in winter, you could double your good health and wellbeing.

Each plot has suggestions for follow-up crops to avoid plant diseases, building up from growing the same vegetables season after season. Follow the plots list to become familiar with growing a variety of vegetables over several seasons on just one square metre. If you grow all plots in succession, as presented in Part One, your square will remain healthy and productive. Or choose a Stir-Fry Plot, Pasta/Pizza Plot or Soup Plot, then grow green or bean crops in between. See Part One. And if some vegetables fail to produce, there are many things to blame: climate change, freak weather, a scorcher, snap-freezes, dud seeds or the neighbour's cat. It's not your fault. Flops happen to the experts. They just don't publicise them!

When the season and the spirit is upon you check out other plot plans in Part One, dip into relevant chapters in Part Three, and roam through the lists of common vegetables, herbs and easy-care fruit trees in Part Four.

Use this book as a guide to grow salad vegetables all year round, or two squares of salad greens with pasta and pizza tomatoes, capsicums and eggplant.

Or, start that way and season by season extend the squares until you provide most vegetables for your table. Or, stay with one or two squares to grow gourmet vegetables. Learn how to grow and prepare them unconventionally while extending their productivity.

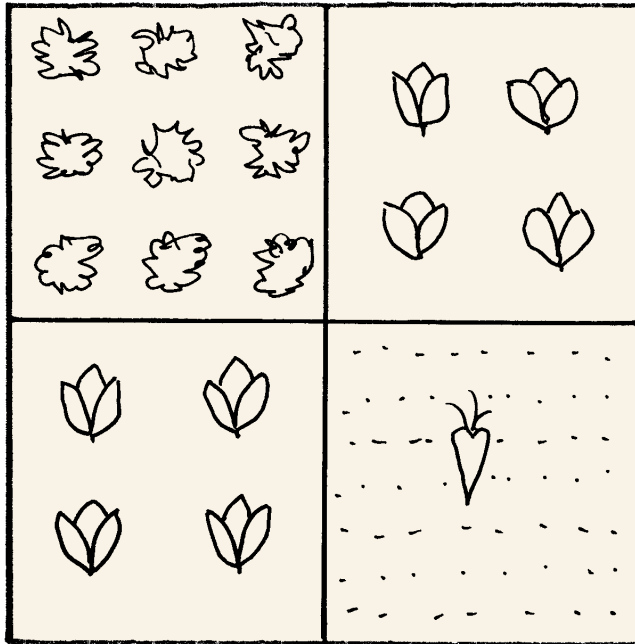
Reading all of Part Two on a rainy weekend will clarify your hopes and desires. Maybe you settle for gourmet vegetables, or expensive delectables such as artichokes, asparagus, baby squash, garlic or salad onions. Easy and rewarding.

Some plots are sown like a jungle with mixed seeds, such as the Horta Plot for lovers of wild herbs and vegetables. Horta can be sown any season. You could make it your first plot as it grows fast, provides variety, and can be resown on one quarter each season thereafter.

Of course you can't be self-sufficient in cabbages on one square metre; the big drumheads feel crowded at four to a square. But you can be self-sufficient in one vegetable or another on one square. Plant compact sugar cabbages four to a quarter, with another four on a quarter not adjoining. That's eight cabbages for coleslaw, with two quarters for lettuce, carrots, radish and a tomato. Check out mini cauliflowers.

Such density does not suit rambling pumpkin vines, but drape two cucumber plants over an old chair, trellis or wire tower on a quarter. Go vertical with peas, beans and mini pumpkins draped over the edge. With trellises on two sides you are in clover, but in summer don't place them against hot fences or walls. But in winter a plot dug close to a fence or wall benefits from reflected warmth.

Water your plot once a day without fail and when vegetables start coming up read some more in Part Three, depending on what you want your food garden to be this year.



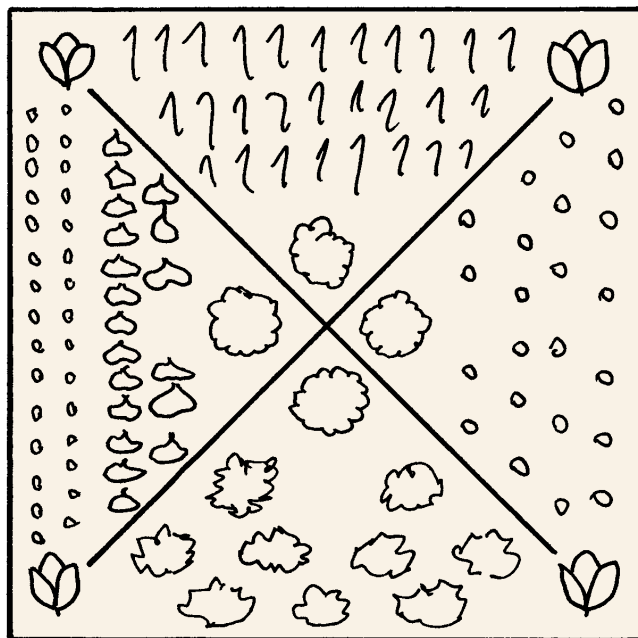
9 lettuces

8 sugar cabbages

$\frac{1}{4}$ square carrots

Everyone likes salads. Supermarket lettuces – too big for singles and couples – are often crisp from overwatering but not always tasty. Yet one square metre of soil makes you self-sufficient for months in pick-and-come-again salad greens, up in six weeks. Grow half a dozen varieties of non-hearting lettuces and radicchio close together, with chives and radishes in between, and cucumber and giant red mustard hanging around on the corner of the block. Such a bed keeps going if you plug in more seed. If meanwhile you prepare another square, you will have salad greens all year on two square metres. For soil health, grow a bonus of beans in summer and peas or broadbeans in winter on the finished plot. What is two square metres in an Australian backyard in return for daily fresh salads and seasonally fresh peas and beans?

Do you love garlic, nature's antibiotic that adds such a kick to pastas and



corners: 4 sugar cabbages
 centre: 4 mini cauliflowers
 north: spring onions
 east: 20+ beets
 south: 9 lettuces
 west: 30+ radish, 20+ garlic

soups, salads and stir-fries? It is no longer a cheap knob because it takes the better part of a year to mature, tying up the commercial producer's soil longer than other crops. Most shop-bought garlic is now imported – from cheap Chinese to American garlic at three times the price. Yet, if you deep dig one square, or one quarter of reasonable soil in a corner of the backyard, fork in composted animal manure, plant the cloves of garlic bulbs, and mulch thickly, you will have the joy of seeing green sprigs turn into edible straps until drying tops announce that new bulbs are ready for harvest. Plant plenty for cooking, pickling and replanting. Enjoy the luxury of whole roasted garlic knobs, artichoke hearts in garlic sauce, or baby squash with garlic butter. Present a trio of knobs plaited together to your best friends, who wouldn't be your best friends unless they also loved garlic!

Each plot is charted to start in the season best suited to the vegetables it grows, then carries through the year with other options for crop rotation. You can therefore start your square at any time of the year. Many vegetables are sown repeatedly through summer, while others are harvested to be replaced by cool-weather plants in autumn. The majority of plots grow a multiplicity of vegetables, so intercropping occurs naturally. Companion-planting principles and nitrogen-fixing plantings govern the plot designs.

To recapitulate:

- Choose your first plot from Part One on the Contents page.
- Read the section on your chosen plot.
- Choose which vegetables and herbs to grow.
- Read up on the vegetables and herbs of your choice in Part Four. If you don't see a vegetable in the first list, it may be a herb.
- Read two chapters in Part Three, choosing those of immediate concern.
- Prepare soil as described for your chosen plot.
- Read **Seeds & Seedlings** to decide which to use.
- Plant seedlings and sow seeds, water in well and daily.

Should there be the faintest possibility that you will continue to extend your food garden, it would be advantageous now to go straight to Part Two and Part Three, put up your feet while the lettuces germinate, and read some chapters with practical ideas. *There are certain things you will want to know before you turn your second square, even if your are going to lay out that food garden in annual increments over 10 years.*

It's so easy to make mistakes that may be long regretted. One vital ingredient of a food garden is your choice of watering system. This should determine

the layout of the beds, not the other way around. Read **Water & Watering** in Part Three.

Another point to consider is the garden's aspect. Where does the sun strike, the wind blow, the shade fall? Where is the garden bordered by walls, fences, trees or buildings that function as windbreaks or heat reflectors? Think infrastructure and make a sketch.

Jot down ideas you will need to start doing what you want to do, be that a perpetual Salad Plot, just growing gourmet food, or following the sequence of seasonal plots in Part One.

If you are developing an entire garden, either because you haven't done so before and the backyard is an abandoned football field, or because you have moved into a new housing estate, read the whole of Part Three. Sketch a plan on the back of a large envelope. Jot down a shopping list for seeds, B&B etc. on the front of the envelope.

Now sift your desires and visions splendid, clarify your aims and postpone a few ideas. By the end of Part Three you will know just what you want and be able to find any description you need through the Contents page or Index.

Read through Part Two in order to grasp the philosophy of taking control of your food supply. Imagine the flavour of organic food grown the peasant way. Know that you are doing something for yourself as well as the planet's biodiversity.

No week, month or year is ever the same in the food garden. Use the alphabetical lists in Part Four to make choices for each season, read up on favourite food plants, observe as they grow, and keep adjusting compost, mulch, manure, water, shade cloth and companion plants until you get incredible results. You can become an expert in growing your chosen vegetable in one year, because you are doing it on such a small scale!

Not all vegetables need so many adjustments, but a few minutes attention can mean the difference between a puny cauliflower and a snowy head. Placing wood or a tile under a pumpkin to prevent rot takes little effort. So does placing a shade cloche over seedlings or lettuces.

By reading Parts One and Three while your Salad Plot grows, you grasp how a number of closed cycles benefit an organic garden and figure out your own cycles and how they operate. You become an authority on your chosen vegetables, a chef in your own kitchen and a healthier, fitter human bean.



A Salad Plot showing six varieties of pick-and-come-again lettuces, cucumber on the fence, tomatoes, and a broccoli seedling and shallots around an onion setting seed. A dozen new lettuce seedlings have been plugged in between with fresh compost.

PART ONE

The Magic Square Metre Plots

The square-metre plots are graded according to the ease with which the plants grow in temperate Australia. Salad Plots start the list because lettuces, chives and radishes are quick and easy to grow. These are followed by the Broadbean Plot in autumn to give copious results for little work, while putting nitrogen back into the soil. Gradually the plots get a little more complex and varied. Please yourself to add or delete vegetables as you go.

If you are a flat or unit dweller, a few boxes on the balcony or patio will allow you to plant most plots in this book on an even smaller scale. A square-metre plot translates into approximately 4-5 boxes. Boxes dry out quickly so push them together and pack wet towels or newspapers around their sunny side in hot weather. Or put up an umbrella during hours of blazing sunlight, or invest in a sun screen for you and your greens.

While your Salad Plot is growing, read **How to Use this Book** if you skipped it and make yourself familiar with the essential list of abbreviations.

The Salad Plots

All mentioned salad vegetables and herbs are discussed individually in the **List of Common Vegetables** and the **List of Common Herbs** in Part Four. Varieties of lettuce are discussed under Lettuce; Radicchio and Endive have separate entries; see also Salad Greens.

Salad Plots are discussed in detail, because they are probably the ones you grow most often. Almost all green leaf vegetables mentioned are pick-and-come-again plants until they bolt to seed. If you want the easiest of all salad plots, buy a packet of mesclun seed, a mixture of up to a dozen salad greens. Sow half the packet, rake in and water well. Sow pinches of seed through the season as space becomes available.

Home-grown salads can contain a dozen vegetables without a leaf of lettuce. Leaves of amaranth, beetroot, endive, giant red mustard, yellow mustard, radicchio, rocket, sorrel, spinach, bok choy and mizuna, as well as cucumber, peas, swedes, nasturtium leaves and flowers, carrot, radish, salad onion, tomato, chives, bronze fennel, cauliflower and broccoli florets, borage, marigold, and zucchini, all mix in the salad bowl. If fresh dandelion grows in your garden, use the leaves to add a delicious bitter twang and lots of nutriment. Then there are beans, beetroot (raw, boiled or pickled) and cabbage for coleslaw. These take a little longer to grow.

Try adding sprouting mung beans (which take up to a week to sprout depending on temperatures), or succulent brown or lima beans to add bulk to winter salads. Or toast croutons with crushed garlic and olive oil in a skillet and toss over the greens.

Herby salads are achieved by adding basil, chives, coriander, fennel, mints,

marigold petals, pennyroyal, salad burnet, and tarragon. Look around a herb nursery and sniff the leaves. Small leafy herbs, e.g. coriander, basil, dill and caraway, grow well between vegetables. Make a separate plot for herbs that sprawl – e.g. rocket – in a border or under a tree with at least half a day’s sun. Later in the season take cuttings or seed from there to grow on as companion plants for vegetables, in the ground or in mobile pots.

A square-metre plot can produce enough to provide 3–4 people with a small daily salad if you feed and water it well and keep plugging in seeds or seedlings. If artistically inclined, you could even paint with your vegetables by dividing the plot into triangles and growing different coloured vegetables in each with a marigold in the centre.

Read the chapter **Seeds & Seedlings** on raising seedlings and the unexpected benefits of toilet rolls. And don’t forget about seed-saving.

Seed-saving: Let one of each variety go to seed. Stake tall plants.



'Goldrush' zucchini produce reliably in Paul Zabukovec's seaside garden, here flanked by jalapeño chillies.

Salad Plot A

LATE WINTER, SPRING & SUMMER



6 varieties of lettuce

6 bush beans ☺

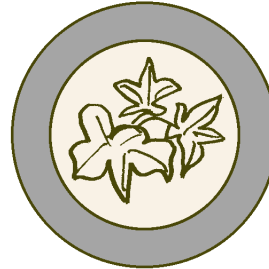
10-12 spring onions in bunches
of 3

2-3 cherry tomatoes on corners
(staked) ☺

radishes on the sidelines ◦

1 rocket on the last corner

1-2 cucumbers in tyre stack or tub >



In mid winter, dig the square with well-rotted manure and compost. In late winter rake in B&B and lime if soil is acidic. Mix six pinches of lettuce seed varieties in a cup (cos, butter head, green oakleaf, red Lollo, mignonette, chicory). No need to keep these separate. Sow a row. If the weather is vile, or you want to protect seedlings from wildlife, sow in a deep box – e.g. a wine casket with a few drainage holes – that can be kept in a protected place until plants are large enough to be planted out. Sow 1-2 rocket seeds in one corner of the square.

Sow 2–3 cherry tomato seeds and 12 spring onion seeds in separate punnets (a punnet can be a margarine tub with drainage holes). Plant six bush beans in toilet rolls stacked in a punnet, and two cucumber seeds in two toilet rolls standing in between punnets. Choose dependable Lebanese, striped or heat-tolerant Chinese cucumber. Place all in a warm, protected place. Water daily, twice if temperatures rise above 30 degrees, and thrice if it gets awful. Seedlings should never dry out.

When seedlings are 5 cm high, transplant lettuces 10 cm apart, in three short rows 20 cm apart. When soil has warmed up and all danger of frost is over, plant tomato seedlings on the corners where they can be staked. Plant spring onions in bunches of three, between lettuces. Plant bush beans between the lettuce rows. Plug in a dozen radish seeds here and there. When cucumber plants have four leaves, replant them in a tyre stack or large pot with plenty of CMC, next to the square where they can sprawl.

As plants grow, plug in compost where there is space. Pick outside leaves of lettuces regularly. Pick onion greens when young and they will keep growing. Pick rocket all the time and, when it grows large, use leaves in stir-fries. Tomatoes take longer to ripen, so start picking as soon as the fruit gets a blush and ripen it on a sunny window sill. Late, unripe tomatoes can still ripen inside or make green chutney. Freeze cherry tomatoes for sauce. Pick cucumbers young to keep plants producing.



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